

#### 40 CFR Part 63 MACT NESHAP Subpart SSSSSS Evaluation

Puget Sound Clean Air Agency Compliance Department

Reg #: 11656 - 568 Routed: Engineer **GSP** MAP RGB Inspector **TJH** Supervisor Planner 01/29/2010 02/25/2010 03/30/2010 03/31/2010 04/02/2010 Date Received: Reviewed:

Facility: Ardagh Glass 

Received Paper Copy

Address: 5801 E Marginal Way S

Seattle, WA 98134

Date Received: 01/29/2010

Date Evaluated: 02/25/2010

NOV / WW #:

Message on Information Request:

#### Review:

This is the Initial Notification required under 40 CFR 63.11456(a)(1) and 63.9(b)(2). It was due by 4/24/08 and we received the original submittal on 4/11/08. I called Marlon Trigg to ask why it was (re)submitted. He said it was accidental and that there are no changes to the original submittal, which listed furnaces 2-5.

However, the Notification of Compliance Status report (evaluation #526) stated that furnace 5 isn't presently affected since it isn't producing green (chromium-containing) glass. I also received e-mail from Marlon Trigg dated 2/23/10 which states "We will not be using chromium on Furnace 5. How may I go about amending the determination?" I called him again and he told me to disregard the e-mail. Furnace 5 may be used to produce green glass in the future and a performance test will be performed at that time.

I concur with GSP's assessment.



#### **Stack Test Evaluation**

Puget Sound Clean Air Agency Compliance Department

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#### Review:

This is a stack test report for furnace 3 to determine compliance with the MACT standard of 0.02 lb/ton of glass produced under 40 CFR 63.11451. The electronic report was received on 4/4/11, followed by the hard copy on 4/6/11. The report was due within 60 days of the test (by 4/29/11).

Furnace 3 was previously tested on 6/9/09 and was found to be emitting 0.002 lb/ton of antique green glass, a factor of 10 below the standard. Chromium (iron chromite) is the only metal HAP added to the glass and it produces the green color. Champagne green contains about 6 times more iron chromite than antique green. Because the test has to be conducted while the furnace is operating at its maximum production rate per 63.11452(b)(3), Saint-Gobain repeated the test on 2/8/11. This is the first time the furnace has produced champagne green since the MACT compliance date of 12/26/09.

A copy of the test plan was received by the Agency on 1/5/11, only 34 days in advance of the test. Saint-Gobain requested that the 60 day notification required under 40 CFR 63.7(b) be waived because of the logistical issues of forecasting the production 60 days out. I responded stating that the NESHAP contains no waiver provisions for this requirement but that we had no objection to the test being conducted on 2/8/11. The correspondence is included in the final appendix of the test report.

Furnace 3 was found to be emitting 0.0066 lb of chromium per ton of champagne green glass produced, which is a factor of 3 below the limit. Virtually all of the chromium measured by Method 29 was filterable. The pull rate during the test was 8.18 ton/hr, which is consistent with previous tests. Although Method 29 enables simultaneous measurement of PM and metal emissions, the PM emissions weren't quantified. Therefore, I can't tell how representative this test was in terms of particulate emissions.

Since the furnace has no control equipment, no monitoring is required under 63.11454 and continuous compliance can be demonstrated by satisfying the recordkeeping requirements under 63.11457, which appear to include only paragraphs (a)(1), (a)(4), (b), (c) and (d).

I reviewed Engineer Pade's report. No violations were determined. - TJH



March 31, 2011

Via Certified Mail: No. 7010-1670-0002-5326

Return Receipt Requested

Mr. Gerry Pade Puget Sound Clean Air Agency 1904 3rd Avenue, Suite 105 Seattle, WA 98101-3317

Re:

Saint-Gobain Containers, Inc.

Seattle, WA

Source Test Report - Furnaces 3 and 4

Global Consent Decree Civil Action Case No. 2:10-cv-00121-TSZ. W.D. Washington

Dear Mr. Pade:

You will note a new letterhead on this letter. Effective April 2010, all 12 Saint-Gobain glass packaging businesses around the globe (including Saint-Gobain Containers, Inc. ("SGCI") in the U.S.) became a single brand: Verallia.

Enclosed are two copies of the Source Evaluation Report for the testing that was completed during February 8, 2011 on Furnaces 3 and 4 at the Seattle Facility. Furnace 3 was tested for chromium to further demonstrate compliance with the NESHAP for Glass Manufacturing Area Sources, 40 CFR Part 63, Subpart SSSSSS for affected sources. This furnace previously demonstrated compliance with Subpart SSSSSS but was re-tested following a color change and the chromium result was 0.0066 lb/ton in compliance with the limit of 0.02 lb/ton. Furnace 4 was tested for NOx and SO2 to comply with the annual test requirement in the GCD. The NOx result was 8.2 lb/ton which is less than the interim emission factor in the GCD. The SO<sub>2</sub> result was 0.93 lb/ton and demonstrates compliance with the 2.5 lb/ton interim limit in the GCD.

Confidential process information is submitted under separate cover.

uglar N. Colourn

If you have any questions or require additional information, please contact me at 206-768-6221.

Sincerely,

Saint-Gobain Containers, Inc.

Douglas N. Coburn Plant Manager

Enclosure: Test Report Dated 2.8.11

SAINT-GOBAIN CONTAINERS

5801 E. Marginal Way S. Seattle, WA 98134 Tel: (206) 762-0660 • Fax: (206) 768-6266 • www.sgcontainers.com • www.verallia.com



January 19, 2010

#### Certified Mail - Return Receipt Requested

Puget Sound Clean Air Agency Attn: Gerry Pade 1904 3<sup>rd</sup> Avenue, Suite 105 Seattle, WA 98101

RE:

Saint-Gobain Containers, Inc.

Seattle, WA

NESHAPS for Glass Manufacturing Area Sources

Dear Mr. Pade:

Saint-Gobain Containers, Inc. is providing this notification required by 40 CFR 63 for the facility located at 5800 East Marginal Way South, Seattle, WA 98134. This facility is an affected source under the Glass NESHAPS rule published December 26, 2007. This facility manufactures glass containers and uses iron chromite as a raw material in Furnaces Nos. 2, 3, 4, and 5.

If you have any questions, please contact me at 206-768-6221.

Sincerely,

Saint-Gobain Containers, Inc.

Douglas N. Coburn

Plant Manager

cc:

Marlon Trigg

David Grega Valerie Krulic Jayne Browning

Tom Hudson - Inspector

#### Final Rule 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Glass Manufacturing Area Sources

#### Complete this statement for each furnace at the facility.

Plant Location:	Seattle
Furnace No.:	2
Date:	01-19-10

I have reviewed the glass batch formula and the table below represents the usage status of the glass manufacturing HAPs.

HAPs Metal	Yes	No
arsenic		<b>√</b>
cadmium		<b>√</b>
chromium	<b>*</b>	
lead		✓
manganese		<b>√</b>
nickel		

Name:

Title:
Signature:

Name:

Manager

Plant Manager

DOUGLAS N. COBURN

# Final Rule 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Glass Manufacturing Area Sources

Complete	this:	statement	for each	furnace	at	the	facility.

Plant Location:	Seattle
Furnace No.:	3
Date:	01-19-10

I have reviewed the glass batch formula and the table below represents the usage status of the glass manufacturing HAPs.

HAPs Metal	Yes	No
arsenic		<b>√</b> .
cadmium		<b>-</b>
chromium	<b></b>	
lead		✓
manganese		<b> </b>
nickel		<b>√</b>

Name:	DOUGLASN. COBURN
Title:	Plant Manager
Signature:	Waghen T. Colore

# Final Rule 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Glass Manufacturing Area Sources

Com	olete	this	statement	for eacl	i furnace	at the	e facility.

Plant Location:	<u>Seattle</u>
Furnace No.:	5
Date:	01-19-10

I have reviewed the glass batch formula and the table below represents the usage status of the glass manufacturing HAPs.

HAPs Metal	Yes	No
arsenic		✓
cadmium		<b>✓</b>
chromium	<b>*</b>	
lead		<b> </b>
manganese		<b>-</b>
nickel		<b>✓</b>

Name: DOUGLAS N. COBURNO
Title: Plant Manager
Signature: Laughan Tolum

#### Final Rule 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Glass Manufacturing Area Sources

C	omplete	this	statement	for each	furnace	at th	re facility.

Plant Location:	Seattle
Furnace No.:	4
Date:	01-19-10

I have reviewed the glass batch formula and the table below represents the usage status of the glass manufacturing HAPs.

HAPs Metal	Yes	No
arsenic		<b>√</b>
cadmium		✓
chromium		
lead		<b>√</b>
manganese		<b>√</b>
nickel		✓

Name: DOUGLAS No COBURAD

Title: Plant Manager

Signature: Vagagan No Colomore

# Final Rule 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Glass Manufacturing Area Sources

Complete	this	statement	for	each	furnace	at	the	facility

Plant Location:	Seattle
Furnace No.:	5
Date:	01-19-10

I have reviewed the glass batch formula and the table below represents the usage status of the glass manufacturing HAPs.

HAPs Metal	Yes	No
arsenic	-	<b>√</b>
cadmium		<b>√</b>
chromium	<b>√</b>	
lead		<b>-</b>
manganese		<b>√</b>
nickel		<b>√</b>

Name:	DOUGLASH COBURIO
Title:	Plant Manager
Signature:	Chughan Color

To: McClintock, Katie[McClintock.Katie@epa.gov] From: Brian Renninger Thur 2/18/2016 7:14:11 PM Sent: Subject: RE: Spectrum Glass Test Report It's a public document, share as you see fit. Brian Renninger, P.E. Engineer Puget Sound Clean Air Agency 206.689.4077 brianr@pscleanair.org 1904 Third Avenue, Suite 105 Seattle, WA 98101 "Working together for clean air" www.pscleanair.org From: McClintock, Katie [mailto:McClintock.Katie@epa.gov] Sent: Thursday, February 18, 2016 11:13 AM To: Brian Renninger Subject: RE: Spectrum Glass Test Report

Thanks brian -

Any concerns about me sharing this with OR DEQ?

Sent: Thursday, February 18, 2016 10:58 AM To: McClintock, Katie < McClintock. Katie@epa.gov >; Hedgpeth, Zach < Hedgpeth.Zach@epa.gov >; owens.katherine@epamail.epa.gov Subject: Spectrum Glass Test Report Attached is a copy of the Spectrum Glass Emissions Test from 11-24-03. Interesting thing about this test. From the details in Appendix A, it appears they used PSCAA method 5 (see attached board resolution for the method) which has EPA method 5 front half, plus addition procedures for measuring back half from the impingers. From just a quick scan it appears that the test firm used the total particulate result to calculate the g/kg value for demonstration with the Subpart CC limit rather than the front half only which would be more in line with the NSPS wording (which refers to using 60.8 and 40 CFR 60 Appendix A test methods). Upshot, it still demonstrates compliance with the NSPS particulate limit but, does have some condensable information in there as well. Brian Renninger, P.E. Engineer Puget Sound Clean Air Agency

From: Brian Renninger [mailto:BrianR@pscleanair.org]

206.689.4077

brianr@pscleanair.org

1904 Third Avenue, Suite 105

Seattle, WA 98101

"Working together for clean air"

www.pscleanair.org

**To:** McClintock, Katie[McClintock.Katie@epa.gov]

From: Kaetzel, Rhonda

**Sent:** Wed 2/17/2016 5:41:16 AM **Subject:** RE: Big color glass companies

Your still working too?

I am finishing my FAQs for east coast... BTW – did I tell you I'm going to Portland on Thurs and staying through Sat?

--

#### Rhonda Kaetzel

Region 10 Director, ATSDR

206-553-0530 (office) 206-471-2443 (mobile)

vnc2@cdc.gov

From: McClintock, Katie

Sent: Tuesday, February 16, 2016 9:40 PM

To: Kaetzel, Rhonda < Kaetzel. Rhonda @epa.gov>

Subject: RE: Big color glass companies

I am including them in the daily update. I should be sending out shortly.

From: Kaetzel, Rhonda

Sent: Tuesday, February 16, 2016 10:20 AM

To: McClintock, Katie < McClintock.Katie@epa.gov >

Subject: RE: Big color glass companies

Oh - and the names of the folks in DC...

--

#### Rhonda Kaetzel

Region 10 Director, ATSDR

206-553-0530 (office) 206-471-2443 (mobile)

vnc2@cdc.gov

From: McClintock, Katie

Sent: Tuesday, February 16, 2016 10:01 AM

To: Kaetzel, Rhonda < Kaetzel. Rhonda@epa.gov >

Subject: RE: Big color glass companies

Yes, I'm sorry, people keep calling and I can't get anything done! Haha. I'll try to multitask better.

Katie

From: Kaetzel, Rhonda

Sent: Tuesday, February 16, 2016 9:59 AM

To: McClintock, Katie < McClintock.Katie@epa.gov >

Subject: RE: Big color glass companies

Can you write short recap of TRI release issue and what permit they are adhering to and why there is a loophole?

---

#### Rhonda Kaetzel

Region 10 Director, ATSDR

206-553-0530 (office) 206-471-2443 (mobile)

#### vnc2@cdc.gov

From: McClintock, Katie Sent: Tuesday, February 16, 2016 8:59 AM **To:** Kaetzel, Rhonda < <u>Kaetzel.Rhonda@epa.gov</u>> Subject: Big color glass companies The Big Players in the Color Glass Industry: O System 96 – Woodinville, WA (collab btwn spectrum and uroboros) • 🗆 🗆 🗆 Kokomo Opalescent Glass – Kokomo, IN • \ Youghiogheny Opalescent Glass company – Connellsville, PA • • • • Carry Glass – Kennesaw, GA Other information: •□□□□□□ The concern here is ambient impacts at sustained high levels. As a result, the facility surroundings are important both in terms of residences but also schools where a larger population is spending many hours a day near the facilities. o Bullseye, Kokomo, Youghiogheny, Armstrong – All in neighborhoods with very close houses. Bullseye is very close to schools. Haven't investigated others. o <u>Uroboros</u> and <u>Spectrum</u> are a little farther from houses, but both are within a quarter mile of a school.

O <u>Wissmach</u> seems to be about a half mile from anything.



Katie McClintock

Air Enforcement Officer

EPA Region 10

1200 Sixth Avenue, Suite 900, OCE-101

Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

Mcclintock.katie@epa.gov

To: McClintock, Katie[McClintock.Katie@epa.gov]
Cc: Giles-AA, Cynthia[Giles-AA.Cynthia@epa.gov]

From: McCabe, Janet

**Sent:** Sun 2/14/2016 2:51:06 AM

Subject: Re: McClintock, Katie has shared 'Color Glass'

Thanks Katie. I don't know how to get into this site. Do I use my usual login information, do you know?

Sent from my iPhone

On Feb 13, 2016, at 5:58 PM, McClintock, Katie < McClintock.Katie@epa.gov > wrote:

Ed Kowalski asked me add you so you have info on our high profile investigation at colored glass manufacturers related to emissions of hexavalent chromium, cadmium and arsenic.

## Go to Color Glass

To: McClintock, Katie[McClintock.Katie@epa.gov]

Cc: PALERMO Jaclyn[PALERMO.Jaclyn@deq.state.or.us]

From: MONRO David

Sent: Sat 2/13/2016 5:04:00 AM Subject: RE: other glass plants

Hey Katie,

It was probably Jaclyn Palermo, or somebody in her section. She is cc'd.

I don't know if you work weekends but if you do, let's talk tomorrow (and if you don't, then let's talk Tuesday).

My work cell is 503 793 9635

Please excuse any brevity, grammar or spelling as this was sent with a mobile.

----- Original message -----

From: "McClintock, Katie" < McClintock. Katie@epa.gov>

Date: 02/12/2016 9:00 PM (GMT-08:00)

To: MONRO David < MONRO. David@deq.state.or.us>

Subject: other glass plants

Hi Dave -

Hope your meeting with Bullseye went well. It will be interesting to hear the outcome when you have time.

Also a member of your staff is looking into the other plants and I forgot her name and had one more thought for her. Can you remind me of her name or have her call me? Either way!

Hope you get a little rest this weekend.

Katie McClintock Air Enforcement Officer EPA Region 10 1200 Sixth Avenue, Suite 900, OCE-101 Seattle, WA 98101 Phone: 206-553-2143

Fax: 206-553-4743 Mcclintock.katie@epa.gov

# Colored Glass Manufacturing Metals Emissions Group

#### Key Players

- 1. EPA
  - a. OCE Katie McClintock
  - b. OAWT Madonna Narvaez, Air Toxics; Paul Koprowski Portland ODEQ liaison
    - i. Janis Hastings, Acting OD
    - ii. Dave Bray, Special Asst to Office Director
    - iii. Don Dossett, Unit manager
  - c. OEA
    - i. Risk assessment: Julie Wroble, Marc Stifleman
    - ii. Modeling Rob Elleman
    - iii. Monitoring Chris Hall
    - iv. Technical Zach Hedgpeth
  - d. Communications/public affairs/congressional
    - i. Marianne Holsman
    - ii. Cindy Schuster
  - e. HQ-
- i. OAQPS main contact: Mike Koerber
- ii. OAQPS/Sector Programs and Policy Division
  - 1. Keith Barnett (manager)
  - 2. Susan Fairchild rule writer
- iii. OAQPS/Emissions Monitoring center: Steffan Johnson
- iv. OAQPS/Monitoring
  - Chet Wayland (office director)
  - 2. Dave Shelow monitoring manager

#### v. OECA -

- 1. Scott Throwe
- 2. Patrick Yellin, rule Compliance contact
- 3. ??

**To:** McClintock, Katie[McClintock.Katie@epa.gov]

From: Schaufelberger, Daniel
Sent: Fri 2/12/2016 3:56:47 PM
Subject: RE: I'm looking for..

OK. Are these sources that should be complying with the 6S MACT?

#### Daniel Schaufelberger

U.S. Environmental Protection Agency, Region 5

77 West Jackson Blvd. (AE-17J) Chicago, IL 60604-3590 Phone: (312) 886-6814

From: McClintock, Katie

Sent: Friday, February 12, 2016 9:37 AM

**To:** Schaufelberger, Daniel <schaufelberger.daniel@epa.gov>

Subject: RE: I'm looking for..

Not surprising. This source (bullseye glass) isn't even in echo but is emitting crazy high levels of metals. The second largest in Portland doesn't even have a minor permit. These guys are flying under the radar. I am not sure if that ohio facility is the right one either, but a quick search turned it up. I'll set something up.

From: Schaufelberger, Daniel

Sent: Friday, February 12, 2016 5:36 AM

To: McClintock, Katie < McClintock. Katie@epa.gov >

Subject: RE: I'm looking for..

We don't have any records of the facility in our enforcement database. I'll look for an OEPA permit. I have availability to discuss next week. Just pick an available time from my calendar.

Thanks.

#### Daniel Schaufelberger

U.S. Environmental Protection Agency, Region 5

77 West Jackson Blvd. (AE-17J) Chicago, IL 60604-3590 Phone: (312) 886-6814

From: McClintock, Katie

Sent: Thursday, February 11, 2016 10:44 PM

To: Schaufelberger, Daniel < schaufelberger.daniel@epa.gov>

Subject: I'm looking for..

The largest art glass manufacturer in ohio. I think it is Franklin Art Glass Studio but do you have any knowledge: <a href="https://franklinartglass.com/shop/category.aspx/facility/11/">https://franklinartglass.com/shop/category.aspx/facility/11/</a>

We should talk about some major potential problems. "a plant in ohio" was listed as a direct competitor to the ones where we are finding seriously toxic emissions of arsenic, cadmium and probably chromium once we can speciate.

Let's try to find some time to talk soon.

Katie McClintock

Air Enforcement Officer

EPA Region 10

1200 Sixth Avenue, Suite 900, OCE-101

Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

 $\underline{Mcclintock.katie@epa.gov}$ 

**To:** McClintock, Katie[McClintock.Katie@epa.gov]

From: Narvaez, Madonna

**Sent:** Thur 2/11/2016 11:42:55 PM

Subject: RE: anyone have a briefing paper started for the ra for the bullseye (etc) issue?

By the way, Jan is in the office tomorrow.

From: McClintock, Katie

Sent: Thursday, February 11, 2016 2:21 PM

**To:** Narvaez, Madonna < Narvaez. Madonna @epa.gov>

Subject: RE: anyone have a briefing paper started for the ra for the bullseye (etc) issue?

Excellent, good work!

From: Narvaez, Madonna

Sent: Thursday, February 11, 2016 2:21 PM

**To:** McClintock, Katie < McClintock.Katie@epa.gov >; Bray, Dave < Bray.Dave@epa.gov >;

Koprowski, Paul < Koprowski. Paul @epa.gov>

**Subject:** RE: anyone have a briefing paper started for the ra for the bullseye (etc) issue?

Importance: High

Katie, as for assistance we're giving DEQ, please add that we are shipping overnight 2 BGI monitors similar to the ones DEQ used in their screening monitoring to ODEQ.

From: McClintock, Katie

Sent: Thursday, February 11, 2016 2:07 PM

**To:** Bray, Dave <<u>Bray.Dave@epa.gov</u>>; Koprowski, Paul <<u>Koprowski.Paul@epa.gov</u>>;

Narvaez, Madonna < Narvaez. Madonna @epa.gov>

**Subject:** anyone have a briefing paper started for the ra for the bullseye (etc) issue?

I just started working on one since we might brief him this afternoon but didn't want to start from scratch if someone else has beat me to the punch.

Katie McClintock

Air Enforcement Officer

EPA Region 10

1200 Sixth Avenue, Suite 900, OCE-101

Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

Mcclintock.katie@epa.gov

**To:** McClintock, Katie[McClintock.Katie@epa.gov]

From: Narvaez, Madonna

**Sent:** Thur 2/11/2016 9:38:59 PM

**Subject:** FW: SE Portland Metals Emissions Briefing - Air Monitoring update

From: Hall, Chris

Sent: Thursday, February 11, 2016 1:35 PM

To: Elleman, Robert <Elleman.Robert@epa.gov>; Hastings, Janis <Hastings.Janis@epa.gov>;

Narvaez, Madonna < Narvaez. Madonna@epa.gov>; Bray, Dave < Bray. Dave@epa.gov>;

Koprowski, Paul < Koprowski. Paul @epa.gov>

**Cc:** Islam, Mahbubul <Islam.Mahbubul@epa.gov>; Stifelman, Marc <Stifelman.Marc@epa.gov>; Wroble, Julie <Wroble.Julie@epa.gov>

Subject: RE: SE Portland Metals Emissions Briefing - Air Monitoring update

All, I spoke with Anthony Barnack at DEQ this morning to get a better understanding of the air monitoring work they have and are currently performing. Anthony is presently on the ground setting up new air monitoring equipment for the follow-up study in SE Portland near the Bullseye Glass Company. He filled me in on the relevant details of the Oct 2015 screening study and their current plans for a more intense follow-up study. Following are the details I was able to gather during our phone conversation.

#### Oct 2015 Screening Study:

- One site with two PM10 low volume monitor located 220 meters NE of Bullseye GC.
- One month study from Oct 6 through Nov 2; 18 sample days.
- BGI PQ200 monitor same as used for school air toxics study at Harriet Tubman MS.
- ICP-MS analysis of Teflon filters conducted by Desert Research Institute, Reno NV.
- 9 metals analyzed Cr, Co, As, Se, Cd, Pb, Ni, Mg, and Be.
- Average As, Cd, and Ni concentrations above ambient benchmark levels
- No QAPP or study report developed.

- Lab results can be found at

http://www.deq.state.or.us/nwr/docs/PowellSE22nddata.pdf

#### Current Study:

- 4 sites; following NATTS monitoring protocols
- o Winterhaven K-8 ES; 460 meters WSW of BGC (not running power issues)
- o Fred Meyer parking lot, 220 meters NNW of BGC (not running power issues)
- o CCLC daycare; 215 meters SSE of BGC (currently running)
- o A site NW of BGC (not running site location tbd)
- o A site near Uroboros Glass Studio (not running site location tbd); approx 5.0 km NNW
- 3 monitors at CCLC
- o 2x PM10 high volume; 1x running 12hr and 1x running 24hr
- 1x BGI PQ200 for sampler comparison analysis
- 1 PM10 high volume at other 3 sites
- o 12 hr averaging period
- Hi-vols quartz filters with ICP-MS analysis by DEQ lab
- BGI lo-vol Teflon with ICP-MS analysis by DRI
- Everyday sampling initially for 2 weeks further sampling may occur and will be based on the results from this initial 2 weeks.

Anthony also mentioned that the moss study shows a potential for high Ni and Cd near Precision Castparts in NW Portland and that this could be a future concern for us all.

Thanks, Chris

From: Elleman, Robert

**Sent:** Thursday, February 11, 2016 9:49 AM **To:** Hall, Chris < Hall.Christopher@epa.gov>

Subject: FW: SE Portland Metals Emissions Briefing

From: Hastings, Janis

**Sent:** Thursday, February 11, 2016 9:01 AM **To:** Elleman, Robert < <u>Elleman.Robert@epa.gov</u>>

Cc: Koprowski, Paul < Koprowski. Paul@epa.gov >; Bray, Dave < Bray. Dave@epa.gov >;

Narvaez, Madonna < Narvaez. Madonna@epa.gov > Subject: Re: SE Portland Metals Emissions Briefing

Thanks, Rob. This is interesting and I appreciate the background.

We had a briefing with Janet McCabe this week, and also she wanted to let us know that HQ is available to assist.

We should be aware of and on top of ODEQ's current air monitoring in the area. Let me know if there are needs or concerns. Paul and Madonna can coordinate with you.

Jan

From: Elleman, Robert

Sent: Thursday, February 11, 2016 8:48 AM

**To:** Hastings, Janis; Bray, Dave; Narvaez, Madonna **Subject:** RE: SE Portland Metals Emissions Briefing

Is this no longer relevant?

Regardless, I'm back in the office and can tell you what I know. The USFS presented their moss results to NW-AIRQUEST last summer: <a href="http://www.lar.wsu.edu/nw-airquest/docs/20150624\_meeting/20150625\_Donovan\_moss.pdf">http://www.lar.wsu.edu/nw-airquest/docs/20150624\_meeting/20150625\_Donovan\_moss.pdf</a>. ODEQ had initiated this effort and had reached out to the USFS to use moss as a surveillance method (surveillance in the scientific definition, not a conspiracy theory definition). They found high levels of Cd and As in a bull's eye around Bullseye and also to some extent Uruboros. A moss study gives you an estimate of deposition, not concentration, and so there was no information from that study to cause concern. ODEQ told everyone they planned to follow up with monitoring. That wasn't particularly shocking or notable, since the AQ community is always looking into various issues and they rarely blow up like this one did.

The moss study gives an integrated deposition, and the time period over which that deposition occurred is a big unknown with that kind of measurement. So there's no time period to speak of.

I am not aware of a written report from USFS about the moss study, though I suspect one exists.

I heard from ODEQ last week that the monitoring started in the fall and they only had a month or so of ambient air data processed before they started to get concerned. I know the technical folks at DEQ wanted to spend more time checking the data and doing analysis before it entered the public sphere. But that didn't happen.

From: Hastings, Janis

Sent: Wednesday, February 10, 2016 7:43 AM

To: Bray, Dave <Bray.Dave@epa.gov>; Narvaez, Madonna <Narvaez.Madonna@epa.gov>

**Cc:** Elleman, Robert < <u>Elleman.Robert@epa.gov</u>> **Subject:** RE: SE Portland Metals Emissions Briefing

I'm copying Rob on this in case he might also have information.
Jan
From: Bray, Dave Sent: Tuesday, February 09, 2016 6:39 PM To: Narvaez, Madonna < Narvaez. Madonna@epa.gov >; Hastings, Janis < Hastings. Janis@epa.gov > Subject: RE: SE Portland Metals Emissions Briefing
I'll look back through the emails tomorrow to see if I can figure out what monitoring it was talking about.
Dave
From: Narvaez, Madonna Sent: Tuesday, February 09, 2016 6:35 PM To: Bray, Dave <a href="mailto:Bray.Dave@epa.gov">Bray.Dave@epa.gov</a> >; Hastings, Janis <a href="mailto:Hastings.Janis@epa.gov">Hastings.Janis@epa.gov</a> > Subject: RE: SE Portland Metals Emissions Briefing
It may be that the correlation is only one month, because that's how much data ODEQ had.
From: Bray, Dave Sent: Tuesday, February 09, 2016 6:34 PM To: Narvaez, Madonna < Narvaez, Madonna@epa.gov >; Hastings, Janis

<Hastings.Janis@epa.gov>

Subject: RE: SE Portland Metals Emissions Briefing

I though the one month of data was referring to the ODEQ air monitoring, not the USFS moss study. There is no reason for the USFS data to be so limited, but I guess it could be. But given the biological processes for bioaccumulation of metals and the dispersion of pollutants from a point source, I would have some concerns about a short sampling period for the moss study.

Dave

From: Narvaez, Madonna

Sent: Tuesday, February 09, 2016 6:27 PM

To: Bray, Dave <Bray.Dave@epa.gov>; Hastings, Janis <Hastings.Janis@epa.gov>

Subject: RE: SE Portland Metals Emissions Briefing

Importance: High

I had asked Judy is EPA did have a copy of the report. I remember Sarah telling me since the actual study belonged to USFS, she was not able to share it with us. Paul gave her the USFS contact to try to see if they would let us look at it. It is based on one month's worth of data, and still is draft, I think.

From: Bray, Dave

Sent: Tuesday, February 09, 2016 6:25 PM

To: Narvaez, Madonna < Narvaez. Madonna@epa.gov >; Hastings, Janis

<Hastings.Janis@epa.gov>

Subject: RE: SE Portland Metals Emissions Briefing

Hmmm. That statement has been in this draft desk statement for many versions and no one has asked who is reviewing it or even if we have it for review.

I wonder if our enforcement folks got it somehow or ASTDR?

Dave

From: Narvaez, Madonna

Sent: Tuesday, February 09, 2016 5:53 PM

To: Hastings, Janis < Hastings. Janis@epa.gov>; Bray, Dave < Bray. Dave@epa.gov>

Subject: RE: SE Portland Metals Emissions Briefing

Importance: High

EPA is not reviewing the USFS report. Although DEQ has seen the study, they are not free to share it. Paul Koprowski has a call in to the USFS contact to see if we can get a copy of the study.

From: Hastings, Janis

Sent: Tuesday, February 09, 2016 5:35 PM

**To:** McCabe, Janet < McCabe.Janet@epa.gov>; Niebling, William < Niebling.William@epa.gov>; Page, Steve < Page.Steve@epa.gov>; Koerber, Mike < Koerber.Mike@epa.gov>; Wayland, Richard < Wayland.Richard@epa.gov>; Millett, John < Millett.John@epa.gov>; Wood, Anna < Wood.Anna@epa.gov>

**Cc:** McLerran, Dennis < mclerran.dennis@epa.gov >; Pirzadeh, Michelle

<<u>Pirzadeh.Michelle@epa.gov</u>>; Narvaez, Madonna <<u>Narvaez.Madonna@epa.gov</u>>; Bray, Dave <<u>Bray.Dave@epa.gov</u>>; Holsman, Marianne <<u>Holsman.Marianne@epa.gov</u>>; Kowalski, Ed <Kowalski.Edward@epa.gov>

Subject: RE: SE Portland Metals Emissions Briefing

Below is a draft agenda for our call tomorrow and the Desk Statement.

**Briefing for Janet McCabe on SE Portland Air Toxics** 

- 1. Agenda Review Most important questions OAR would like to focus on?
- 2. How EPA/Oregon learned about the facility/facilities (background on previous ODEQ ambient air toxics monitoring and modeling efforts in Portland) Region 10
- 3. Basics of our MACT and area source rules for glass manufacturing facilities and why they do not apply to this facility (i.e., what we knew when we finalized them) -- OAQPS
- 4. Current status and activities underway by State and federal agencies (monitoring, facility inspection, health assessment, etc.) Region 10
- 5. Next steps

**Desk Statement: SE Portland Metals Contamination** (draft, 2/9/2016)

The Oregon Department of Environmental Quality found a significant "hot spot" of cadmium and arsenic during air sampling in Portland, Oregon near SE 22nd Ave. and Powell Blvd. DEQ is collecting additional air samples in the affected area, and is working collaboratively with county, state and federal health agencies (Oregon Health Authority, Multnomah County Health Department, and the Agency for Toxic Substances and Disease Registry) to assess and mitigate impacts to public health. EPA is keeping fully informed about this developing situation and is ready to support and assist ODEQ as needed. EPA and ATSDR are evaluating these findings in relation to EPA health standards.

Additional information, including a link to air sampling data and a map of the affected area, can be found at: <a href="http://www.deq.state.or.us/nwr/metalsemissions.htm">http://www.deq.state.or.us/nwr/metalsemissions.htm</a>. DEQ's initial findings are that the monthly average is 49 times greater than the state air toxics benchmark for cadmium and 159 times the state air toxics benchmark for arsenic.

#### **Questions and Answers**

How is EPA involved?

EPA Region 10 was briefed on the situation by ODEQ one-week prior to the February 3, 2016 press release. We remain ready to support DEQ, OHA, MCHD and ATSDR in assessing, monitoring or communicating about the situation as needed.

If so, what is our role?

EPA Region 10 is looking at our records to identify other potential sources in the affected area. We are also comparing federal regional screening levels (RSL) with the ODEQ state health benchmarks in relation to the amount of contamination found in the study. In addition to EPA, the ATSDR is working with DEQ, OHA and Multnomah County Heath to communicate the potential impact on the community from the monitored levels of contamination.

Are we determining or confirming the air pollution and/or the source?

ODEQ is keeping EPA informed of their actions to monitor the situation and exposure levels. As of Friday, February 5, they were proceeding with additional particulate monitoring at nearby schools and day care centers.

Why isn't this source regulated by EPA?

When EPA adopted the National Emission Standards for Hazardous Air Pollutants for glass manufacturing facilities in 2007, art glass facilities were not known to be a source of significant emissions. EPA is evaluating what next steps may be appropriate based on the recent discovery of cadmium and arsenic pollution in Portland, Oregon.

Do we know any more about the USFS role or study mentioned in the news media?

EPA is reviewing this study, which was a collaborative study between US Forest Service and DEQ to better understand the sources and distribution of toxic metals, including arsenic and cadmium, air pollution in Portland.

----Original Appointment----

From: McCabe, Janet

Sent: Tuesday, February 09, 2016 6:28 AM

To: McCabe, Janet; Niebling, William; Kowalski, Ed; Page, Steve; Koerber, Mike; Wayland, Richard; Millett, John; Wood, Anna; Bray, Dave; Narvaez, Madonna; Holsman, Marianne;

Hastings, Janis

Cc: McLerran, Dennis; Pirzadeh, Michelle

Subject: SE Portland Metals Emissions Briefing

When: Wednesday, February 10, 2016 1:30 PM-2:00 PM (UTC-05:00) Eastern Time (US &

Canada).

Where: WJC-N 5400 + Ex. 6 - Personal Privacy

**To:** McClintock, Katie[McClintock.Katie@epa.gov]

**Cc:** Eric Durrin (ericdurrin@bullseyeglass.com)[ericdurrin@bullseyeglass.com]

From: Hunter, Jeffrey (Perkins Coie)
Sent: Thur 2/18/2016 1:44:10 AM

Subject: Re: Bullseye Glass - EPA Requests for Information

Attachment 2 Batch Ticket Packet.pdf

<u>Attachment 1 Bullseye Furnace Information.pdf</u> 2016.02.14 Letter to EPA re information Request.pdf

Hello Katie:

On behalf of Bullseye Glass Company, please see the attached in response to EPA's information requests. Please note that Attachments 1 and 2 contain confidential business information. With the hardcopy, we are including a CD with the temperature data for all of the furnaces. Bullseye anticipates responding to the last two requests within two weeks.

Please call if you have any questions.

#### Jeffrey Hunter | Perkins Coie LLP

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### **PERKINSCOIE**

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February 17, 2016

#### VIA CERTIFIED MAIL AND ELECTRONIC MAIL

Jeffrey L. Hunter JHunter@perkinscoie.com D. +1.503.727.2265 F. +1.503.346.2265

Katie McClintock Air Enforcement Officer EPA Region 10 1200 Sixth Avenue, Suite 900, OCE-101 Seattle, WA 98101

Re: Request for Information to Bullseye Glass Company

Dear Ms. McClintock:

On behalf of Bullseye Glass Company ("Bullseye"), this letter and accompanying information and documents are sent in response to the U.S. Environmental Protection Agency's ("EPA") February 10, 2016 information request as modified by your February 12, 2016 email (the "Information Request"). As agreed, Bullseye is providing information in response to the first three requests. Bullseye anticipates providing responses to the remaining requests and supplementing, if required, the information and documents provided herewith within the next two weeks.

Please note this information on Attachments 1 and 2 is confidential business information pursuant to 40 CFR § Part 2, Subpart B. The batch information and furnace melt capacities are proprietary information. Consistent with 40 CFR § 2.208, Bullseye Glass takes reasonable measures to protect the confidentiality of the information and it intends to continue to take such measures. The information is not, and has not been, reasonably obtainable without Bullseye's consent. To Bullseye's knowledge no statute specifically requires disclosure of the information. Disclosure of the information is likely to cause substantial harm to Bullseye's competitive position. It is Bullseye's position that this information does not constitute emissions data under 40 CFR § 2.301. We request that EPA maintain this information as confidential. Your cooperation in this regard is greatly appreciated.

In submitting this response, Bullseye is not consenting to EPA's authority to make the Information Request to Bullseye and reserves its right to object to EPA's assertion of such authority. In addition, Bullseye does not waive any right, privilege, or objection which Bullseye may have in any subsequent proceeding related in any way to this response. Bullseye reserves the right to object to the use of any information provided in this response for any evidentiary purpose whatsoever. By providing this response, Bullseye is not waiving any privilege which may be claimed as to this response, any documents provided herein or which may be provided in the future, or as to any discussions related to the issues outlined in this response. Bullseye reserves the right to supplement this response.

K. McClintock February 17, 2016 Page 2

After you have reviewed this information, please contact me to discuss the additional information requests to confirm that Bullseye is providing the relevant and appropriate information.

Sincerely,

Jeffrey L. Hunter

Counsel for Bullseye Glass Company

Enclosure: CD with furnace temperature information

cc: Eric Durran, Bullseye Glass Company

## Bullseye Glass Company's Responses to EPA's Information Request

Bullseye Glass Company hereby responds to your information requests. For your convenience, we have repeated the request followed by Bullseye's response.

Information Request No. 1: Size of each furnace/schematic labeled with furnace info.

Response: See Attachment 1. Attachment 1 contains a furnace roster and a typical schematic of a furnace at Bullseye.

**Information Request No. 2**: Batch tickets for each furnace and each melt going back to 10/1/15.

Response: See Attachment 2. Attachment 2 contains the batch tickets for October 5, 2016 through October 6, 2015 and October 12, 2015 through October 19, 2015. These batch tickets are representative of typical operations. Once you have reviewed this information, we will supplement as appropriate with additional batch tickets.

**Information Request No. 3**: Temperature readings at backwall for each furnace going back to 10/1/15 at whatever frequency recorded. These readings would preferably be in spreadsheet format and include the date and furnace number.

Response: Spreadsheets containing temperature readings going back to October 1, 2015 for each furnace are enclosed on the disc accompanying the hardcopy version of this letter.

**Information Request No. 4**: Confirm the dates each furnace was converted to oxyfuel or any other major modifications other than a brick-for-brick rebuild back to 1996.

Response: This information will be provided within two weeks.

**Information Request No. 5**: Refractory materials purchased for last 3 years.

Response: This information will be provided within two weeks.

**To:** McClintock, Katie[McClintock.Katie@epa.gov]

From: Eric Lovell

**Sent:** Tue 2/16/2016 9:59:27 PM

Subject: Sample documents from Uroboros Glass

removed.txt

20160216133756731.pdf

Dear Ms. McClintock,

Before preparing and sending you what likely will amount to hundreds of pages of documents, please review the format of these samples

to insure they meet your expectations.

- 1. Map of facilities, including furnace locations and batch mixing area.
- 2. Furnace design overview, including Bill of Materials. I'm expecting to provide Tech data sheets for the actual refractories used in the current rebuilds. The refractory types are essentially the same as those on the drawings, but the manufacturers/brands have changed.
- 3. A sample 'Weekly Melt Plan', showing furnace numbers in columns, production dates in rows. Color IDs, melt pounds produced, and melt temperature for each melt can be found on this report.
- 4. A sample batch formula. These show both the material weights for a hypothetical 1000# mix weight and the theoretical oxide equivalent after melting.

Please review each document and let me know what works and doesn't work for your needs. My specific question on the sample batch formula is whether this format will suffice as is, or do you also need a separate batch ticket for each melt, with the weights specific for that size melt? If the latter, do you want a fresh print of these, or are you seeking a copy of the actual batch ticket showing the manual check-offs for each ingredient used?

We will await your guidance before submitting further documentation.

Also, in order to provide timely information to satisfy your request I have sent you these sample

documents in digital form. Since you made it clear that your office is less likely to be able to protect the security of CBI information in digital form than on paper, I request that you print out these documents for your records if you need them after your review and then delete the unsecure email record. When a format is acceptable by you I will submit a complete paper set including these dates as requested.

Sincerely,

Eric Lovell

#### Eric Lovell

President



2139 N. Kerby Ave Portland, OR 97227 503-284-4900 x 201 T 503-284-7584 F To: Brownell, Creagh[Brownell.Creagh@epa.gov]

From: McClintock, Katie

**Sent:** Mon 3/7/2016 4:56:49 AM

Subject: when you get in can you check and see if i have mail from bullseye glass and call me if i do as

soon as you can? Thanks!

Katie McClintock

Air Enforcement Officer

EPA Region 10

1200 Sixth Avenue, Suite 900, OCE-101

Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

Mcclintock.katie@epa.gov

To: Schaufelberger, Daniel[schaufelberger.daniel@epa.gov]; Prentice,

Dakota[prentice.dakota@epa.gov] **From:** McClintock, Katie

**Sent:** Sun 3/6/2016 11:31:49 PM

Subject: inspection questions

R4 ART GLASS INSPECTION CHECKLIST - KM 3-6-16 edits.docx

Cobbled this together for region 4 based on something they had started. Thought I'd send to you in case it is useful. There might be missing pieces. I hope to be able to proofread and clean it up soon.

Katie McClintock

Air Enforcement Officer

EPA Region 10

1200 Sixth Avenue, Suite 900, OCE-101

Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

Mcclintock.katie@epa.gov

### ART GLASS INSPECTION CHECKLIST

l.	General Information	
	Facility Name	
	Facility Address	
	Facility Contact Name/Title	
	Facility Phone Number	

- 2. Does the facility melt ay materials that are not already glassified (metal oxides, sand, soda ash, etc) or a high metal oxide containing frit (cad frit or lead frit)? Note: If the facility uses partial cullet and partial other materials, that is still yes. If No, answer the following subquestions and conclude the inspection, if Yes go to the next section.
  - a. Describe the material used for the process (frit, glass bars, pillows, sheets) and the process involved in the design of the stained or colored glass (fusing, melting, etc.)?
  - b. How much of each material is used on a daily or weekly basis (lbs)?
  - c. How is the glass melted to work with? Describe the heat source and the temperatures involved. For how long and at what temperature is each piece of glass typically melted?

### **Glass Manufacturing Section**

- 1. Describe the glass manufacturing process including receipt of raw materials, batch mixing, batch melting, coatings, annealing and any frit processing.
- 2. Describe the units (furnaces/kilns/pots) used to melt glass.
- 3. For melting units (referred to as furnaces but includes kilns and pots), provide the following:
  - a. The designation for the furnace.
  - b. The holding size of the furnace (lb).
  - c. Is the furnace a pot furnace (clay pot), a classic furnace (refractory rectangular shape with overfired direct heating) or a kiln (small ceramic lined vessel)?
  - d. For furnaces which are not pots or kiln, answer the following:
    - i. Is glass manufactured on a continuous process or is glass added and removed with each batch?
    - ii. Is the furnace a air-gas or oxygen-gas? If the furnace is oxygen-gas, what date was it converted?
    - iii. Does the furnace have any heat recovery (recuperators or regenerators)? Describe.
  - e. When the furnace was originally constructed? Has the size, shape or operation (oxyfuel, electric, recuperative) been altered since original construction?
  - f. What is the general operating temperature of the furnace? What are the highest and lowest temperatures during a melt?
  - g. Where is the temperature in the furnace measured? Is it recorded?
  - h. Is the furnace empty regularly for more than 2 hours? If so, when and for how long? What temperature is the furnace kept at during these periods?
  - i. Obtain a schematic of the furnace with dimensions.
  - j. Obtain design information on the furnaces that includes holding capacity size and maximum glass flow in tons per hour or tons per year.
  - k. What is the refractory made out of for each furnace?
- 4. Describe the melting process at the facility including the time for batch charging, number of charges, cook time, ladeling/emptying time, and reheat time. If it varies between furnaces describe for the different types.
- 5. Describe the air pollutants emitted from the process.
- 6. How much glass product is made per month and per year?
- 7. Are any other metals (such as cadmium, arsenic, lead, manganese, or nickel) added to the process and, if so, which furnaces receive which metals? For each metal how much is used monthly and annually? Obtain inventory records if possible. Also obtain an msds for any metal used in the furnace.

- 8. If chromium is added, is it hexavalent (chromates) or trivalent chromium (chromites)? This should be provided as an msds as well under #7.
- 9. Where do the furnaces exhaust (roof stack, side building vent)?
- 10. Are there any air emission controls on the dust handling from the raw materials, material undloading, batch mixing or frit processing? If so, review the dust capture system and get information on the baghouses in place and what process streams each baghouse receives. What is done with the dust collected from the baghouse. If it is melted, what is done with the vitrified product?
- 11. Are there any air emission controls being used on the furnaces? For each unit, describe
  - a. Type of unit (ESP, baghouse)
  - b. List of furnaces exhausted to the baghouse
  - c. Design, flow rate, and, for baghouses only, the type of bags.
  - d. Temperature of the exhaust in the unit
  - e. Parameters monitored and recorded?
  - f. Maintenance schedule for the unit.
  - g. Have there been any performance tests on the unit? If so provide all stack tests.
  - h. What is done with the waste from the bahouse?
  - i. Has any waste analysis been performed on baghouse dust from any of the furnaces and, if so, obtain a copy of the results.
- 12. Request batch tickets (or similar, like a charge record and formula) for each furnace for the last month.

Inspector Name	Date	

**To:** BOLING.Brian@deq.state.or.us[BOLING.Brian@deq.state.or.us]

From: McClintock, Katie

**Sent:** Sun 3/6/2016 9:58:11 PM **Subject:** two articles and the stack test

Chromium VI Air Study QAPP Rev 1 12-05-2011.pdf

Cr rxn Linak etal96.pdf

11656-640-3-St Gobain 4212 F3 Chrome F4 NOx SO2 Feb 2011 REV Op.pdf

Not sure if you have any time for light reading before 4, but in case they are useful, here are two articles on chrome (one on formation at temperatures similar to inside the furnaces, glass furnaces are about 2500 F) and the other is an ambient hex chrome study in r7. I am also attaching the stack test for chrome VI on the Ardagh Seattle plant in case that is useful to you. It shows the stack temperature and that 98.5% was filterable.

Good luck. Let me know if you need anything. I'll be curious to hear how it all turns out.

Katie McClintock

Air Enforcement Officer

EPA Region 10

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Mcclintock.katie@epa.gov